

REMARKS

The Examiner has rejected claims 1 through 5, 7 through 10, 12, 13, 15, 16, 18, 19, 21 through 24, 26, 27, 29 through 37, 39, 40 and 42 through 44 under 35 U.S.C. §112, Second Paragraph. The Examiner has requested clarification on the drawings. The Examiner has objected to the specification. The Examiner has rejected claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b). The Examiner has also rejected claims 45 through 47 under 35 U.S.C. §103(a). In view of the above amendments and the following remarks, the Applicant respectfully requests the Examiner to reconsider the withdrawal of the currently pending rejections.

The Section 112, Second Paragraph Rejections

The Examiner has rejected claims 1 through 5, 7 through 10, 12, 13, 15, 16, 18, 19, 21 through 24, 26, 27, 29 through 37, 39, 40 and 42 through 44 under 35 U.S.C. §112, Second Paragraph for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to independent claim 1, the Examiner has pointed out that the step of “generating a set of threshold values” should be after the step of “determining whether or not a portion of the image data is an outline portion.” The Examiner has asserted the above order based upon the disclosure in a flow chart of FIGURE 10. The Applicant do not necessarily agree that the above “generating” step must be recited after the “determining” step since the specification on page 13 supports either sequence of the steps as will be described below. However, the Applicant has clarified the subject matter by the above claim amendment according to the exact sequence of the steps as illustrated in the flow of FIGURE 10 in the attempt to ascertain that the pending section 112 rejections will be overcome.

Newly amended independent claims 1 and 29 now explicitly recite the “generating” step in question after the “determining” step. Furthermore, the “selecting” step now is also based upon the “threshold” in newly amended independent claims 1 and 29. The above amendments have been supported by the original disclosure of the current application at lines 22 through 26

on page 13 and at lines 1 through 3 on page 14. The original disclosure provides that “the pre-corrected image data from the step S2 is also processed to determine the intensity level of a certain area of the image in a step S4 [, and b]ased upon the above determined intensity levels, a set of threshold values are established for correcting the intensity of the image data in a step S5.”

With respect to independent claim 15, the Applicant believes that the sequential issue appears irrelevant since it recites a system. However, newly independent claim 15 now explicitly recites “an intensity correction unit connected to said operation unit and said space filter process unit for selecting a correction coefficient from a set of predetermined correction coefficients based upon the threshold values, a combination of the outline characteristic and the user input value and applying the selected correction coefficient to the portion of the image data.”

Based upon the above claim amendments and the above remarks, the Applicant respectfully submits that newly amended independent claims 1, 15 and 29 particularly point out and distinctly claim the subject matter which applicant regards as the invention. Dependent claims 2 through 5, 7 through 10, 12, 13, 16, 18, 19, 21 through 24, 26, 27, 30 through 37, 39, 40 and 42 through 44 ultimately depend from either one of the newly amended independent claims. Thus, the Applicant respectfully submits the Examiner that the pending section 112, Second paragraph rejections should be withdrawn.

The Drawing Clarifications

The Examiner has requested clarification on certain drawings including FIGURES 2, 3 and 5. In response, the Applicant affirms that the FIGURE 3 is at least reference numeral 24 in FIGURE 2. Similarly, the Applicant affirms that the FIGURE 5 receives at least the output of FIGURE 3 and is at least reference numeral 25 in FIGURE 5. Lastly, the Applicant affirms that reference numeral 24 in FIGURE 2 is at least reference numeral 3 in FIGURE 1.

The Specification Objection

The Examiner has objected the specification on page 5. Accordingly, the specification has been amended to correct the informalities as the Examiner has kindly suggested. Thus, the Applicant respectfully submits to the Examiner the objection to the specification should be withdrawn.

The Section 102(b) Rejections

The Examiner has rejected claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b) as allegedly being anticipated by the Ueta et al. reference. The Examiner has pointed out that every element of the above independent claims has been disclosed by a single cited reference. Without agreeing with the Examiner's characterization of the cited reference, the Applicant has further amended to clarify the subject matter limitations of the current invention.

Newly amended independent claims 1 and 29 now each explicitly recite "determining whether or not a portion of the image data is an outline portion to generate an outline characteristic of the outline portion in the image data; generating a set of threshold values based upon an intensity level of the inputted image data; selecting a correction coefficient from a set of predetermined correction coefficients based upon a combination of said threshold value, said outline characteristic and said user input value." Similarly, newly amended independent claim 15 now explicitly recites "a threshold unit ... for generating a set of threshold values based upon an intensity level of the inputted image data; a space filter process unit . . . for determining at least whether or not a portion of the image data is an outline portion to generate an outline characteristic of the outline portion in the image data; and an intensity correction unit . . . for selecting a correction coefficient from a set of predetermined correction coefficients based upon a combination of the threshold values, the outline characteristic and the user input value." In other words, the current invention as explicitly recited in newly amended independent claims 1,

15 and 29 calls for the “threshold values” to be generated for each “inputted image data” on the fly. Furthermore, the current invention selects the “a correction coefficient” according to “a combination of the “threshold values,” the “outline characteristics” and the “user input value(s).” Although these patentable features are not identical, some of them may be related to now cancelled dependent claims 11, 25 and 38.

With respect to these cancelled claims, the Examiner has pointed out on pages 6, 9 and 10 in the Office Action that the Ueta et al. reference discloses a CCD signal processor 45 for performing a shading correction and a COMPAR 77 for generating edge data. According to the Examiner, the CCD signal processor 45 of the cited reference corresponds to the generation of an intensity level of the inputted data. Furthermore, the Examiner has also indicated an additional disclosure of the CCD LINE SENSOR 43 of the Ueta et al. reference in relation to the input data. The above portions of the Ueta et al. reference are irrelevant to the patentable feature of the current invention as explicitly recited in newly amended independent claims as will be described below.

In contrast to the above patentable feature of the current invention, the cited portion of the Ueta et al. reference discloses a comparison of a predetermined fixed threshold value that is “preset by the user.” Please refer to lines 15 through 18, column 8 of the Ueta et al. reference. In other words, prior to selecting a certain correction coefficient value, the system of the Ueta et al. reference allows the user to input a user-selected comparison coefficient value T_0 and a user-selected contrast coefficient K . (lines 44 through 48, column 3). Initially, the values a , b , and d from the three consecutive CCD are calculated to generate $P=2b-(a+c)$, and the absolute value of P is compared to the user-selected comparison coefficient value T_0 . If $P < |T_0|$, then no edge contrast is performed. On the other hand, If $P =$ or $> |T_0|$, then edge contrast is performed. In both cases, the T_0 value is fixed.

Newly amended independent claims each require that “a set of threshold values” is generated “based upon an intensity level of the inputted image data” so that “a correction

efficient” is selected partially based upon “the threshold values.” In other words, the current invention requires that the threshold value should not be fixed. This flexible feature has been supported by the original disclosure of the current application at lines 22 through 31 on page 13. No new matter has been introduced by the current amendment.

For these reasons, the cited references fails to anticipate the patentable features of the current invention as explicitly recited in newly amended independent claims 1, 15 and 29. Thus, it would not have been obvious to one of ordinary in the art to provide the above discussed patentable feature of the current invention as explicitly recited in the newly amended independent claims based upon the cited prior art.

Dependent claims are also patentably distinct. Dependent claims 11, 25 and 38 have been cancelled. Other dependent claims 2 through 5, 7 through 10, 12, 13, 16 through 19, 21 through 24, 26, 27, 30 through 37, 39, 40 and 42 through 44 ultimately depend from one of newly amended independent claims 1, 15 and 29 and incorporate the patentable features of the newly amended independent claims. Therefore, the Applicant respectfully submit to the Examiner that the rejection of claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b) should be withdrawn.

The Section 103(a) Rejections

The Examiner has also rejected claims 45 through 47 under 35 U.S.C. §103(a) as allegedly being unpatentable over the Ueta et al. reference in view of the Kawamura et al. reference.

The Examiner has pointed out that every element of the above independent claims has been disclosed by a combination of the two cited references. Although the Examiner concedes that the Ueta et al. reference discloses every element except for the outline characteristic

including information on vertical, horizontal, right and left edges, the Examiner has indicated that the Ueta et al. reference allegedly suggests a spatial arrangement including a direction between two elements. For the lack of the above conceded lack of the clear disclosure, the Examiner has additionally cited the Kawamura et al. reference. The Examiner has indicated with respect to FIGURE 1 that the Kawamura et al. reference discloses the spatial arrangements of the edges. Thus, the Examiner has concluded that the combined disclosures make the subject matter of the independent claims obvious to one of ordinary skill in the art.

As discussed above in the section 102(b) rejections, newly amended independent claims 1, 15 and 29 now each explicitly recite the flexible threshold values according to the inputted image data. Neither the Ueta et al. reference nor the Kawamura et al. reference discloses, teaches or suggests the patentable features of the newly amended independent claims.

For this reason, even if the cited references are combined, the combined disclosures still fail to disclose, teach or suggest the patentable features of the current invention as explicitly recited in newly amended independent claims 1, 15 and 29. Thus, it would not have been obvious to one of ordinary skill in the art to provide the above discussed patentable feature of the current invention as explicitly recited in the newly amended independent claims based upon the cited prior art.

Dependent claims are also patentably distinct. Dependent claims 45 through 47 ultimately depend from one of newly amended independent claims 1, 15 and 29 and incorporate the patentable features of the newly amended independent claims. Therefore, the Applicant respectfully submits to the Examiner that the rejection of claims 45 through 47 under 35 U.S.C. §103(a) should be withdrawn.

Conclusion

In view of the above amendments and the foregoing remarks, Applicant respectfully submits that all of the pending claims are in condition for allowance and respectfully request a favorable Office Action so indicating.

Respectfully submitted,

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